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SCIENCE AND SOCIAL UNREST

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THIS is the era of science. Were we unable to discover this fact for ourselves we at least would come to believe it from the constant and proud affirmations of the scientist. We are told that science has recreated the world and within a brief century. The facts are so apparent that the person least interested in science has to admit them. At every point human experience has been changed by the contribution of science and invention. Traditions have been broken. Customs have been destroyed and are being destroyed. Social habits have been modified. New motives have followed from the new conditions created by science; former motives have grown faint and are passing. Already science has accomplished beyond the dreams of human fancies of an earlier period. And the end is not yet. Indeed, science never promised more than now and was never advancing with more rapidity.

There is another fact that stands out as clearly these days as that of scientific progress. We are living in an age socially as discontented and feverishly restless as the world has known. The discontent is not, however, a hidden dissatisfaction, far under the surface and known only by the few gifted in genius for penetrating into contemporary conditions. Our social discontent is self-conscious, boastful and even blatant. It is also omnipresent and from it we can not escape. It has entered into the remote countryside and brought under its spell even the least sensitive of farm "help." It has captured the house servant and brought chaos to individualistic housekeeping and our crowded hotels to the point of bursting. Contrary to the opinion of some, it is not class movement, for it cuts across classes and is found among the wealthy just as it is among the poor. It is not in any sense national, for it appears to have swept the entire temperate zone like a rapid-moving pestilence.

If the scientist has made our era, he surely must also accept responsibility for our characteristic unrest. It may be that the world has indeed been recreated, but it has not yet been brought to a condition of safety. The scientist in the past has given

scant consideration to the social problems created by his splendid success in mechanical and industrial development. Human nature, as the war has taught us, has changed little since the time of primitive man, and during the last century with the wonderful advancement of science there has not been equal progress in human discipline or intelligence. The things that men handle have been multiplied and magnified, while man himself has lagged behind, altogether too confident that the results of material progress would in themselves bring social satisfaction and sanity.

It was a foolish assumption. To hold it now is stupid stubbornness of mind. There are some who by heroic effort still cling to it, fearing that nothing else can give a substantial basis for the idea of progress. It is, however, growing more and more difficult for any one to believe that social security will necessarily follow from the contributions science is making that enrich the material resources. The unpalatable but enormously significant fact can only be held out of consciousness by the persons who are willing to cloud the social truths if for a season they may protect their intellectual comfort from such disquieting disenchantment as would follow the admission that unrest has become the dominant social phenomenon in this age of scientific prosperity. It is becoming increasingly difficult, however, for any one to shut his eyes to the premonitory fact that stands out so clearly. A multitude of men and women are by no means socially content in this era of science; they are profoundly dissatisfied and their souls are seething with restlessness. The solid fact can not be pushed aside by refusal to recognize it.

From a social point of view science has not been as successful as the average scientist imagines. Science means more than a mere collecting of information. It is not simply a classifying in a systematic way of all the trustworthy facts known at the time. It is especially an attitude of mind and one that human nature acquires with painful difficulty. It originates, to be sure, from a universal instinct of curiosity, but the finished product contains an element of personal indifference which is foreign to the unmodified instinct. Science is the highest form of that reality thinking of which the psychoanalysts make so much and stands in sharpest contrast with their definition of the easy-going pleasure-form of thought. It is the most heroic effort the human mind can make to get rid of all personal inclination and bias in meeting an intellectual problem in order that the truth of any matter may be as accurately known as is possible. It

is in its success in putting aside personal desire that scientific thinking distinguishes itself and wins the right of intellectual supremacy. Huxley has most happily expressed this spirit of self-renunciation on the part of the scientist when he faces any investigation.

Science seems to me to teach in the highest and strongest manner the great truth which is embodied in the Christian conception of active surrender to the will of God. Sit down before fact as a little child, be prepared to give up any preconceived notion, follow humbly wherein and to whatever abysses nature leads or you shall learn nothing.

Unscientific thinking is under no such coercive discipline, but may, if it pleases, follow hard after personal desire even though at the end one be ditched from having neglected fact for fancy.

Science has, by its superior attitude of mind, accomplished marvels and obtained a spectacular success. It has not, however, given the great mass of people any appreciation of its highest function. Science has been valued by the majority of people for its accomplishments, not for its portrayal of the advantages of stern discipline in mental experience. It has merely encouraged a vast multitude to believe that human existence is a never-ending pleasure hunt and science the best giver of material comforts and luxuries. The craving for personal gratification has been stimulated by the magic-like productions of science until an appetite has been created that nothing can satisfy. Social well-being has needed the teaching of science more than its products. The philosophy of the street admires science for its liberality in things; it turns with indifference from any attempt to popularize the self-restraining spirit of science. The scientist is welcomed as a good workman; he is ignored as a teacher.

From such a situation social sanity can not be expected. Science increases the power and freedom of men; it fails, or thus far has failed, to prepare them for the proper use of their increasing opportunities. The race with its hundred thousand years or more of stern discipline and struggle is hardly ready for the present enormous quantity of pleasures and the life-motives that are constructed in pleasure-terms. The social problem has come to be merely making life easier for a greater number of people and by some process permitting material pleasures to be equally shared.

Even if we assume that this program states the goal of all social endeavor it by no means follows that its working out is a simple matter. The problem of method still remains and here,

if ever, there is need of patient scientific investigation and experimentation. Social experience ought by this time to have taught men how complicated the details of any such program must be and how foolish it is to attempt a quick and *a priori* solution. Why is it one may well ask that the popular thought is so intolerant of giving to science the problem of finding a more just distribution of material wealth? The world-wide drift of population toward the cities is part explanation of the confident social philosophy that can not endure the thought of giving even so delicate and hazardous a problem over to "cold-minded" science. Urban life does not tend to teach men caution in the working out of social programs, for it is difficult in the city to have that first-hand contact with nature, which, more than any other human experience, provides the basis for moral discipline and curbs the arrogant and unreasonable demands of men and women. The city, by hiding the natural obstacles that always hamper the accomplishment of man's purposes and by turning the attention to the competition one person has with another, encourages the belief that the difficulty of obtaining one's complete happiness is due to the interferences of other people. The constant experiences of rural people with the menace of frosts, blights, insect pests and droughts impress upon them the elemental fact that nature itself is often in opposition to the purposes of men. Rural philosophy becomes by instinct suspicious of any get-right-quick social scheme.

City conditions provide the perfect opportunity for the gregarious leader, who wins his power by skill in directing urban discontent and industrial restlessness. He is by temperament unsympathetic toward the cautious experimental methods of science. Indeed he could not hold his following by a judicial attitude toward social grievances, for they follow him not for his accomplishments, but for his ability to voice in catching phrases their inarticulate discontent. Everything in the city conspires to turn this dissatisfaction into economic form. The conflict of classes, the apparent omnipotence of money to furnish the conditions of health, social standing and happiness to the well-to-do of the city and to deny them to the poor, the constant pressure of economic competition, these influences and many others of similar character all tend to magnify the value of money and to conceal the ever-present checks upon human purposes that nature will present under any form of social régime. The urban problem of life boils down to the getting of sufficient money to satisfy one's desires and it becomes the con-

viction of a multitude that their satisfactions can be increased only by placing limitations upon other people whose desires collide with their own.

Since the modern city is the creation of science, science must assume responsibility for the intense gregarious appeal that it is now making throughout the civilized world. No person, however great his indifference toward science, ever visits our greatest city without appreciating how science makes possible modern New York. The very existence of the city is conditioned by the inventions that face the visitor on every hand. Were any of the more important contributions science has made to the city's welfare to be removed or made inactive, in an hour's time the city would change from a place of business and amusement to a horrible death trap from which men, women and children would flee as from the clutches of a devouring monster.

It is folly to regard our present social crisis as merely a succession of disputes regarding wages, commodity prices and hours of labor. It is not merely based upon dissatisfaction with our present capitalistic system. In the present temper of the people no change, whether it be in industrial organization or wealth distribution, can bring cessation of social restlessness. Science has created an appetite that no governmental or industrial regime can satisfy.

The situation in which the world finds itself, which the war has hastened but not caused, resolves itself in its lowest terms to the impossibility of a people socially unscientific living a satisfactory life in a scientific era. The safe way out, the path that is likely to be chosen after painful social experiences in any case, sooner or later, is through the popularizing of the spirit of science. The task is not impossible, for any social attitude can be taught by a vigorous, determined leadership.

For the most part in the past science has been indifferent to its teaching function. Many of its leaders have been aristocratic in their conception of science and have looked askance at their colleagues who have had a mild desire to bring to the average person a taste of the sweet fruits of the scientific mind. Especially has the scientist cared little whether science was taught in the public schools or whether it was so taught as to give the developing pupil a glimmering of the methods by which science wins its conquests. College teachers of science have not infrequently dismissed the problem of high-school science with the comment that they always have found that pupils who have had no science in the high school are the best

prepared for college courses in science, refusing to accept the testimony of the students respecting the value of their preparatory courses. The vocabulary of the scientist and his manner of writing and speaking has in general been unnecessarily esoteric and he has been proud of the self-imposed limitation that has given him a class consciousness.

On the other hand, the scientist has been subservient to the ambition of commerce and never-ending effort has been made to popularize the demands for the products of science. By means of human ingenuity, by advertising propaganda of tremendous economic cost, the appetite for things has been stimulated and the concept built up that the happiness of man does consist in the abundance of the things he possesses.

Society desperately needs a democratic science. In very recent years, especially in medicine, there has been a most encouraging movement toward the socializing of science and the acceptance on the part of the scientist of his obligation as a public teacher. Medical science deserves the greatest appreciation for this splendid service carried on often against the self-interests of the profession. It is, however, not the results of science that the people need so much as its spirit of rational discipline.

The promise of social progress is in science teaching men and women with the same success that now it feeds, houses and gives them playthings.